

## **806 KAR 6:070. Valuation of life insurance and annuity reserves.**

RELATES TO: KRS 304.1-050, 304.2-290, 304.3-240, 304.6, 304.15-410

STATUTORY AUTHORITY: KRS 304.2-110, 304.6-140

NECESSITY, FUNCTION, AND CONFORMITY: KRS 304.2-110 authorizes the commissioner to promulgate reasonable administrative regulations necessary for or as an aid to the effectuation of the Kentucky Insurance Code as defined in KRS 304.1-010. KRS 304.6-140 authorizes the commissioner to promulgate administrative regulations approving any mortality table "adopted by the National Association of Insurance Commissioners after 1980" for use in determining the minimum standard for valuation of policies. This administrative regulation establishes the framework for valuation standards acceptable to the department, and establishes the conditions under which the department actuary will verify the valuation of a company's reserves without cost to the insurer.

Section 1. Definitions. (1) "1983 GAM Table" means that mortality table developed by the Society of Actuaries Committee on Annuities and adopted as a recognized mortality table for annuities in December, 1983 by the National Association of Insurance Commissioners.

(2) "1983 Table 'a'" means that mortality table developed by the Society of Actuaries Committee to Recommend a New Mortality Basis for Individual Annuity Valuation and adopted as a recognized mortality table for annuities in June, 1982 by the National Association of Insurance Commissioners.

(3) "1994 GAR Table" means that mortality table developed by the Society of Actuaries Group Annuity Valuation Table Task Force.

(4) "2012 Individual Annuity Mortality Period (2012 IAM Period) Table" means the period table, developed by the Society of Actuaries Committee on Life Insurance Research, containing loaded mortality rates for calendar year 2012 and containing rates,  $qx^{2012}$ .

(5) "2012 Individual Annuity Reserve Table (2012 IAR Table)" means the generational mortality table developed by the Society of Actuaries Committee on Life Insurance Research and containing rates,  $qx^{2012-n}$ , derived from a combination of the 2012 Individual Annuity Mortality Period (2012 IAM Period) Table and Projection Scale G2 (Scale G2), using the methodology established in Section 4(3)(i) of this administrative regulation.

(6) "Actuarial guidelines" mean a series of interpretive guidelines approved by the National Association of Insurance Commissioners for inclusion in its Handbook for Financial Examiners.

(7) "Annual statement" means the annual statement required by KRS 304.3-240.

(8) "Annuity 2000 Mortality Table" means that mortality table developed by the Society of Actuaries Committee on Life Insurance Research. The Annuity 2000 Mortality Table is included in the report on pages 211-249 of Volume XLVII of the Transactions of the Society of Actuaries (1995).

(9) "Commissioner" is defined by KRS 304.1-050(1).

(10) "Department" is defined by KRS 304.1-050(2).

(11) "Department actuary" means the actuary employed by or contracted with the department for the purpose of making or verifying a valuation.

(12) "Generational mortality table" means a mortality table containing a set of mortality rates that decrease for a given age from one (1) year to the next based on a combination of a period table and a projection scale containing rates of mortality improvement.

(13) "Life insurances policies, annuities, and pure endowment contracts":

(a) Means any contracts, together with all riders or endorsements and all additional benefits related thereto, whether these additional benefits are provided by policy provision or supplementary contract; and

(b) Does not mean a provision through which the insurer accepts deposits to provide future insurance, annuity, or pure endowment benefits.

(14) "Period table" means a table of mortality rates applicable to a given calendar year.

(15) "Projection Scale AA (Scale AA)" means a table developed by the Society of Actuaries Group Annuity Valuation Table Task Force of annual rates,  $AA_x$ , of mortality improvement by age for projecting future mortality rates beyond calendar year 1994.

(16) "Projection Scale G2 (Scale G2)" means a table developed by the Society of Actuaries Committee on Life Insurance Research, of annual rates,  $G2_x$ , of mortality improvement by age for projecting future mortality rates beyond calendar year 2012.

(17) "Qualified actuary" means a member in good standing of the American Academy of Actuaries who meets the requirements of Section 6 of this administrative regulation.

(18) "Reserve comparison" means a calculation:

(a) Setting out three (3) year tabulations of extracts from a company's valuation; and

(b) Which is completed by plan, with subtotals by mortality table, interest assumption, and valuation method which correspond to the line entries in Exhibit 5 of the current annual statement.

Section 2. Filing Requirements for Domestic Insurers. (1) To facilitate the commissioner's evaluation of the valuation of reserves for life insurance policies, annuities, and pure endowment contracts made by a domestic insurer's actuary or consulting actuary, each insurer shall furnish the department actuary an affidavit, signed by the qualified actuary responsible for the valuation and setting out insurance amounts and reserves on all contracts by basis of valuation and a reserve comparison.

(2) Each domestic insurer shall maintain in corresponding order, with the necessary documentation, lists, tabulations, and working papers for policy contract obligations to be valued which shall be in readily accessible and auditable form at its home office.

Section 3. Valuation Principles. (1) Extraterritoriality. The commissioner may question or reject any valuation made by the insurance supervisory official of another state which does not comply with the minimum standards as provided in KRS Chapter 304.6.

(2) Nature of liabilities. The liabilities covered by reserves for life insurance policies, annuities, and pure endowment contracts shall be generated by recognition of obligations to provide future sums of money, which are guaranteed in these contracts, and the standards of valuation set out in KRS 304.6-140 through 304.6-180, are set out in prospective terms. If these methods are not possible to apply directly, retrospective methods, using accumulations at appropriate rates of interest shall be acceptable; however, a company using these methods shall be prepared to demonstrate that these methods actually result in sufficient amounts to fund any obligations set out in its contracts as guarantees of future performance. Obligations which arise from known past events shall be valued retrospectively.

Section 4. Specific Requirements. (1) Interest assumptions. The Moody's Corporate Bond Yield Averages referenced in KRS 304.6-145(4) are those for the period ending July 1 for each calendar year.

(2) The actuarial guidelines shall be used as published unless specifically prohibited by statute.

(3) Mortality tables.

(a) Except as provided in paragraph (b) of this subsection, the 1983 Table "a" shall be recognized and approved as an individual annuity mortality table for valuation and, at the option of the company, may be used for purposes of determining the minimum standard of valuation for

any individual annuity or pure endowment contract issued on or after July 1, 1976.

(b) Except as provided in paragraph (c) of this subsection, either the 1983 Table "a" or the Annuity 2000 Mortality Table shall be used for determining the minimum standard of valuation for any individual annuity or pure endowment contract issued on or after January 1, 1985.

(c) Except as provided in paragraph (d) of this subsection, the Annuity 2000 Mortality Table shall be used for determining the minimum standard of valuation for any individual annuity or pure endowment contract issued on or after January 1, 2005.

(d) Except as provided in paragraph (e) of this subsection, the 2012 Individual Annuity Reserve Table (2012 IAR Table) shall be used for determining the minimum standard of valuation for any individual annuity or pure endowment contract issued on or after January 1, 2015.

(e) The 1983 Table "a" without projection shall be used for determining the minimum standards of valuation for an individual annuity or pure endowment contract issued on or after January 1, 2005, solely when the contract is based on life contingencies and is issued to fund periodic benefits arising from:

1. Settlements of various forms of claims pertaining to court settlements or out of court settlements from tort actions;
2. Settlements involving similar actions; or
3. Settlements of long-term disability claims where a temporary or life annuity has been used in lieu of continuing disability payments.

(f) Except as provided in paragraph (g) of this subsection, the 1983 GAM Table and the 1983 Table "a" shall be recognized and approved as group annuity mortality tables for valuation and, at the option of the company, any one of these tables may be used for purposes of valuation for any annuity or pure endowment purchased on or after July 1, 1976, under a group annuity or pure endowment contract.

(g) Except as provided in paragraph (h) of this subsection, the 1983 GAM Table shall be used for determining the minimum standard of valuation for any annuity or pure endowment purchased on or after January 1, 1985, under a group annuity or pure endowment contract. The commissioner shall give consideration to the approval of other tables of mortality which produce lower reserves in any special case, if the request for approval is accompanied by an actuarial report, signed by the qualified actuary, of the reasons for the request. If applicable, the report shall include an estimate of the degree of protection against insolvency provided as margin in the proposed table.

(h) The 1994 GAR Table shall be used for determining the minimum standard of valuation for any annuity or pure endowment purchased on or after January 1, 2015 under a group annuity or pure endowment contract. The commissioner shall give consideration to the approval of other tables of mortality which produce lower reserves in any special case, if the request for approval is accompanied by an actuarial report, signed by the qualified actuary, of the reasons for the request. If applicable, the report shall include an estimate of the degree of protection against insolvency provided as margin in the proposed table.

(i)1. In using the 2012 Individual Annuity Reserve Table (2012 IAR Table), the mortality rate for a person age  $x$  in year  $(2012 + n)$  shall be calculated as follows:

$$q_{x}^{2012+n} = q_{x}^{2012} (1 - G2_{x})^n$$

2. The resulting  $q_{x}^{2012+n}$  shall be rounded to three (3) decimal places per 1,000.

3. The rounding shall occur according to the formula in subparagraph 1. of this paragraph, starting at the 2012 period table rate.

4. An Example: Rounding Calculations for Mortality Table Construction for 2012 IAR Table

page for use of this mortality table is incorporated by reference in this administrative regulation.

(j) In using the 1994 GAR Table, the mortality rate for a person age  $x$  in year  $(1994 + n)$  shall be calculated as follows where the  $q_x^{1994}$  and  $AA_x$  are as specified in the 1994 GAR Table:

$$q_{x, 1994+n} = q_{x, 1994} (1 - AA_x)^n$$

(4) Changes of method (domestic insurers). The effects of changes in the methods of valuing life contracts shall be reported in Exhibit 5A of the annual statement in the year in which the change first takes place. Exhibit 5A shall show the old and the new method of valuation and the increase or decrease in the actuarial reserve due to the change. If adopting a method that produces an increase in the reserve, the company shall notify the department. However, if a change will produce a reserve that will be less than the amount under the old method, the company shall have the prior approval of the commissioner.

Section 5. Cost of Noncompliance. (1) If the material is not available as outlined above, the additional burden of cost for additional time required by the staff of the Department of Insurance, or its department actuary, shall be borne by the life insurance company as provided for in KRS 304.2-290. A special examination may be ordered by the commissioner, providing for a written report to him or her together with a time and expense billing to the company so examined.

(2) If a detail audit of reserves reveals that an error was made in the filed annual statement and in the certificate issued by the department, the commissioner may order the withdrawal of certification and reissuance of certificates and copies, and require a refiled annual statement on a significant error, or request the company to file a corrective action plan prior to the next filed annual statement when the resultant error is not significant.

Section 6. Qualified Actuary Requirements. (1) In order to be considered a qualified actuary, a person shall be familiar with the valuation requirements applicable to life and health insurance companies.

(2)(a) The actuary shall not meet the requirements of a qualified actuary if that person has:

1. Violated any provision of, or any obligation imposed by, any law in the course of his or her dealings as qualified actuary;
2. Been found guilty of fraudulent or dishonest practices;
3. Demonstrated incompetence, lack of cooperation, or untrustworthiness to act as a qualified actuary;

4. Submitted an actuarial opinion or memorandum that was rejected because it did not comply with the Kentucky Insurance Code, KRS Chapter 304, or standards established by the Actuarial Standards Board during the past five (5) years; or

5. Resigned or been removed as an actuary within the past five (5) years as a result of an act or omission indicated in any adverse report on examination or as a result of the failure to adhere to generally acceptable actuarial standards; and

(b) Failed to notify the commissioner of any adverse action taken against the actuary pursuant to paragraph (a)1. through 5. of this subsection by any insurance regulatory official of any other state.

Section 7. Incorporation by Reference. (1) The following material is incorporated by reference:

- (a) "1983 Table 'a'", 1983;
- (b) "1983 GAM Table", 1983;
- (c) "1994 GAR Table", 9/2014;
- (d) "2012 Individual Annuity Mortality Period (2012 IAM Period) Table", 9/2014;
- (e) "2012 Individual Annuity Reserve Table (2012 IAR Table)", 9/2014;
- (f) "Annuity 2000 Mortality Table", 2000;
- (g) "Projection Scale AA (Scale AA)", 9/2014;
- (h) "Projection Scale G2 (Scale G2)", 9/2014; and
- (i) "Example: Rounding Calculations for Mortality Table Construction for 2012 IAR Table", 9/2014.

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